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## EUROPEAN PATENT APPLICATION

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### (54) Apparatus and method of operating a heat pump to improve heating supply air temperature

(57) An apparatus and method for a heat pump operating in the heating mode controls the condenser air flow rate and the condenser exiting air temperature depending in a first embodiment on the evaporator ambient temperature, and in a second embodiment, the evaporator air temperature and alternatively the condenser air flow rate or the condenser exiting air temperature, to alleviate a cold blow condition. The apparatus and method operate by sensing the evaporator ambient temperature with a sensor positioned proximate to the

evaporator, and when that temperature is below a threshold value indicating a cold blow situation, determining by circuit means a modified condenser air flow rate to achieve at the same time a slower air flow and a higher air temperature, so that the cold blow condition is terminated or at least alleviated. The apparatus and method alternatively command the blower to achieve a determined condenser air flow, or to achieve a determined blower speed depending upon motor type, that results in a targeted condenser air flow or a targeted condenser exiting air temperature.

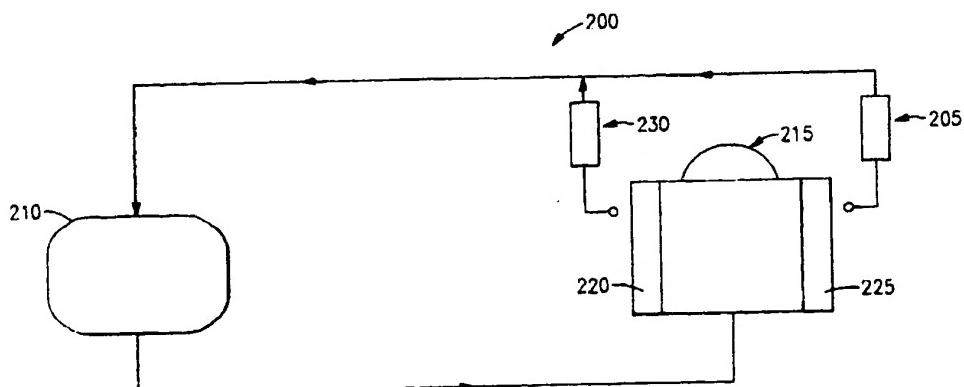


FIG.2

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## EUROPEAN SEARCH REPORT

Application Number  
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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.)						
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim							
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<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 34%;">Examiner</td> </tr> <tr> <td>MUNICH</td> <td>8 July 2002</td> <td>Leclaire, T</td> </tr> </table>				Place of search	Date of completion of the search	Examiner	MUNICH	8 July 2002	Leclaire, T
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MUNICH	8 July 2002	Leclaire, T							
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons  A : member of the same patent family, corresponding document							
<small>EPO-FORM 1500.03 A2 (P04001)</small>									

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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